

8. A medical lead, as in Claim 7, wherein at least three projections are positioned around the inner wall to center the lead body within the lumen.

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9. A medical lead, comprising:
a lead body having an insulator and at least one conductor, wherein the insulator includes at least one welding region;

at least one elongated conductive element having a proximal end electrically connected to the conductor within the welding region; and

a band welded to the elongated conductive element to electrically connect the band to the conductor.

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10. A medical lead, as in Claim 9, wherein the welding region comprises a groove cut in the insulator.

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11. A medical lead, as in Claim 10, wherein the groove runs parallel to the conductor.

12. A medical lead, as in Claim 9, wherein the elongated conductive element is selected from the group consisting of wire, ribbon wire, and cable.

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13. A medical lead, as in Claim 9, wherein the elongated conductive element is electrically connected to the conductor using a method selected from the group consisting of welding, crimping and conductive adhesives

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14. A medical lead, as in Claim 9, wherein the elongated conductive element is composed of a material selected from the group consisting of stainless steel, MP35N, platinum, gold, silver, copper and vanadium.

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15. A medical lead, as in Claim 9, wherein the band is selected from the group consisting of a band electrode, a band connector, and a sensor.

16. A medical lead, as in Claim 9, the band further comprising a plurality of projections on an inner wall of a lumen, wherein the projections space the inner wall from an outer surface of the lead body.

5 17. A medical lead, as in Claim 16, wherein at least three projections are positioned around the inner wall to center the lead body within the lumen.

Claims 18-21
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10 18. A method for manufacturing a medical lead, comprising:
cutting a welding region in a lead body to expose a conductor;
securing a conductive pad within the welding region adjacent the
conductor; and
securing a band to the conductive pad to electrically connect the band
to the conductor.

15 19. A method, as in Claim 18, wherein the welding region is cut with an excimer laser

20 20. A method, as in Claim 18, wherein the conductive pad is secured within the welding region by a method selected from the group consisting of welding, crimping and adhesives.

21. A method, as in Claim 19, wherein the band is secured to the conductive pad by welding with a yttrium-arsenic-garnet laser.

25 22. A method for manufacturing a medical lead, comprising:
cutting a welding region in a lead body to expose a conductor;
electrically connecting a proximal end of an elongated conductive
element to the conductor within the welding region;
positioning a band around the lead body and over the welding region;
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electrically connecting a distal end of an elongated conductive element
to the band.

23. A method, as in Claim 22, wherein the welding region is cut with an excimer laser.

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5 24. A method, as in Claim 22, wherein the elongated conductive element is electrically connected within the welding region by welding.

25. A method, as in Claim 24, wherein the elongated conductive element is welded within the welding region with a yttrium-arsenic-garnet laser.

10 26. A method, as in Claim 22, wherein the elongated conductive element is electrically connected to the band by welding.

27. A method, as in Claim 26, wherein the band is welded to the elongated conductive element with a yttrium-arsenic-garnet laser.

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28. A band for a medical lead, comprising a plurality of projections on an inner surface of a lumen to provide clearance between a lead body and the inner surface for passage of one of a conductive pad or an elongated conductive element during assembly.

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29. A band, as in Claim 28, comprising at least three projections circumferentially spaced around the inner surface of the lumen.

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